In re Application of: Ilan Caron Serial Number:

09/114.231

the sending application passing the dictionary object to the first message queuing machine to deliver to the second message queuing machine;

the first message queuing machine invoking a method of the dictionary object to serialize the dictionary object;

the first message queuing machine sending the serialized dictionary object in a message object to the second message queuing machine;

the second message queling machine receiving the message object and instantiating and loading the serialized dictionary object into an unserialized dictionary object;

the second message queuing machine passing the unserialized dictionary object to the recipient application;

the recipient application identifying a data element in the unserialized dictionary object having a data type not recognized by the recipient application; and

the recipient application sending a query to the first message queuing machine to learn about said data type.

- 68. A method as in claim 67, wherein the query sent by the recipient application is directed to the sending application.
- 69. A method as in claim 67, wherein the dictionary object includes a lookup method for finding a specified dictionary element in a dictionary contained in the dictionary object and a enumerate method for obtaining a next dictionary element from a given position in the dictionary.

In re Application of: Ilan Caron Serial Number:

09/114,231

method as in claim 67, further including the step of applying late binding by the recipient application to reference data elements in the unserialized dictionary object.

71. A method as in claim 67, further including the steps of:

determining, by a message queuing server of the first message queuing machine, whether the message object supports persistence;

determining, by the massage queuing server, a size of the message object and creating a buffer for persistent storage of the message object.

72. A computer-readable medium having computer-executable instructions for performing steps in a message queuing network comprising a first message queuing machine and a second message queuing machine for sending a self-descriptive dictionary object from a sending application to a recipient application, the steps comprising:

the sending application passing the dictionary object to the first message queuing machine to deliver to the second message queuing machine;

the first message queuing machine invoking a method of the dictionary object to serialize the dictionary object;

the first message queuing machine sending the serialized dictionary object in a message object to the second message queuing machine;

the second message queuing machine receiving the message object and instantiating and loading the serialized dictionary object into an unserialized dictionary object;

the second message queuing machine passing the unserialized dictionary object to the recipient application;

In re Application of: Ilan Caron Serial Number: 09/114,231

the recipient application identifying a data element in the unserialized dictionary object having a data type not recognized by the recipient application; and

the recipient application sending a query to the first message queuing machine to learn about said data type.

- 73. A computer readable medium as in claim 72, wherein the query sent by the recipient application is directed to the sending application.
- 74. A computer-readable medium as in claim 72, wherein the dictionary object includes a lookup method for finding a specified dictionary element in a dictionary contained in the dictionary object and a enumerate method for obtaining a next dictionary element from a given position in the dictionary.
- 75. A computer-readable medium as in claim 72, further including computer-executable instructions to perform the step of applying late binding by the recipient application to reference data elements in the unserialized dictionary object.
- 76. A computer-readable medium as in claim 72, further including computer-executable instructions to perform the steps of:

determining, by a message queuing server of the first message queuing machine, whether the message object supports persistence;

determining, by the message queuing server, a size of the message object and creating a buffer for persistent storage of the message object.